

- Turn ignition off.
- Use digital multimeter to test coil primary. Resistance values are listed in **Table c**.

**Table c. Ignition Coil Resistance (M60 engine)**

	Terminals	Resistance
Coil primary	1 (-) and 15 (+)	0.8 Ω (approx.)
Coil secondary	—	—

- Remove coil and inspect coil housing for hairline cracks or leaking casting material. Replace coil if any faults are found.

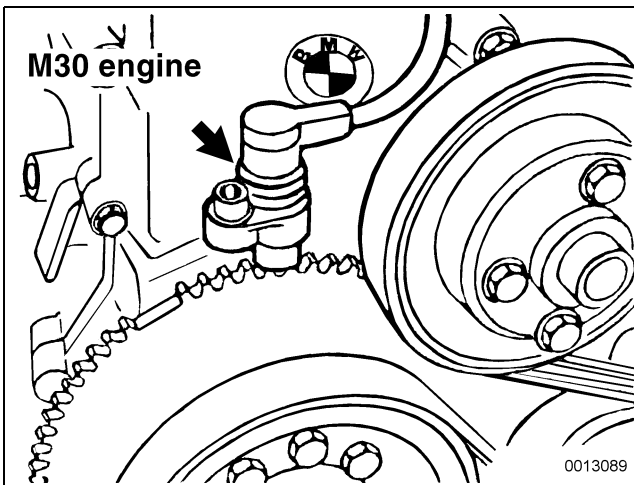
**NOTE—**

*On "May and Christe" manufactured coils, check carefully for thermal stress cracks or signs of leaking casting material. If any of these faults are found, the coil should be replaced before it causes damage to the DME ECM.*

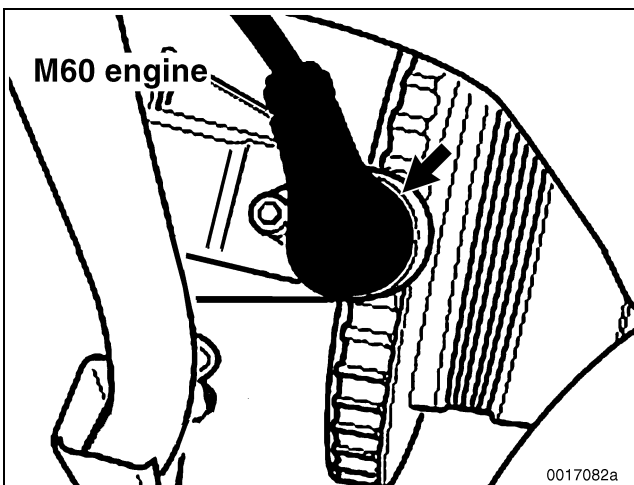
**Crankshaft position/rpm sensor, testing and replacing**

If the engine control module (ECM) does not receive a crankshaft position signal during cranking, engine will not start.

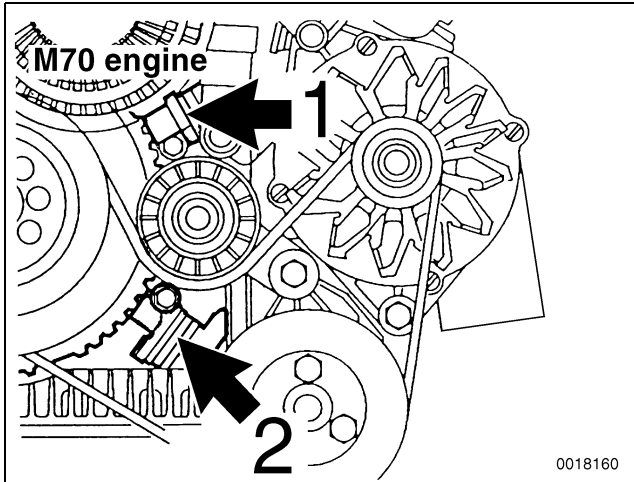
- Engine speed is calculated from rate at which wheel's teeth pass the sensor.
- Crankshaft position is determined by missing-teeth gap on pulse wheel.



- ◀ Crankshaft position/rpm sensor (**arrow**) is mounted at front of M30 engine cover and reads the toothed vibration dampener wheel.



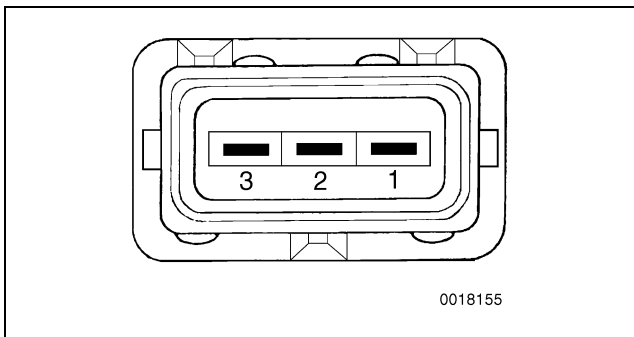
- ◀ Crankshaft position/rpm sensor (**arrow**) mounted at front of M60 engine.



- ◀ Crankshaft position/rpm sensors on M70 engine (arrows) mounted on front timing chain cover. Upper sensor is for DME 1, lower sensor is for DME 2.



- ◀ Disconnect crankshaft position/rpm sensor harness connectors on M70 engine for right bank (1) and left bank (2) of cylinders.



- ◀ Using digital multimeter, check resistance between terminals 1 and 2 in crankshaft position/rpm sensor connector.

### Crankshaft Position/rpm Sensor Specifications

- Coil resistance (approx.) @ 20°C . . . . . 540 ± 10% Ω
- Air gap (sensor distance from toothed wheel) . . . . . 1.0 ± 0.3 mm (0.04 ± 0.01 in.)

- If resistance is not correct, sensor is faulty and should be replaced.

### NOTE—

If the sensor resistance is correct, it does not mean the DME is receiving the signal from the pulse sensor. Make a dynamic test using a scope or a digital voltmeter (VAC) at terminals 15 and 1 while cranking the engine. An AC voltage indicates the sensor is functioning.